OHIO AGRICULTURAL EXPERIMENT STATION
Muck Crops Substation, Celeryville, Ohio

Department of Horticulture Mimeograph Series No. 196
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CELERY VARIETY TRIALS - 1959

Walter N. Brown[1]

Twenty varieties or strains of varieties were compared in trials for late harvest. Four of these varieties, Emerald, Greenlight (Tall Strain), Spartan 162, and Compac 2 were new to these trials and were checked against varieties commonly grown in the state and with retrials from previous years. The results are shown in Table 1.

CULTURAL INFORMATION

Seed sown: April 21, seedlings transplanted to greenhouse benches May 15, and plants set in field June 15, 1959.

Fertilizer: 500 lbs/acre of 0-20-20. Side dressings of 100 lbs/acre of ammonium nitrate were applied approximately 10 days after field setting seed again on July 9, soon after severe hail storms had reduced top growth to stubs.

Pesticides: Eleven applications of Diathane M-22 were applied at approximately weekly intervals from July 16 through September 15. An insecticide (DDT or Parathion) was added where needed. So little blight (either early or late) was present that it was impossible to evaluate varietal differences.

Spacing: Rows spaced 34", with plants 6" in the row, 43 plants per 21' plot, 40 plants for record, replicated six times.

Growing Conditions: On July 1 the area was subjected to a severe hail storm with 40 to 60 mph winds and heavy rains. On July 6, another hail storm deposited approximately 2 inches of hail on the area. Damage resulting from these two storms was severe. Celery plants 6 to 8" tall were reduced to stubs with but a few heart leaves undamaged.

Date of Harvest: Last three replications September 21, and first three on September 23, 1959.

SOURCES OF SEED

Code	Source
A2	Asgrow Seed Co., Inc., 272 George St., New Haven 2,Con.
B2	D. V. Burrell Seed Growers, Rocky Ford, Colo.
F1	Ferry - Morse Seed Co., Detroit 31, Mich.
G1	Gill Bros. Seed Co., Portland 16, Oregon
H1	Joseph Harris Co., Inc., Moreton Farm, Rochester, N.Y.
H2	Holmes Seed Co., 1017 - 9th St., S. W., Canton 2, O.

GENERAL COMMENTS

Greenlight again performed well equalling strains of Utah 52-70 in marketable yield and average weight of large stalks. Number of petioles averaged 2 to 2.5 greater for the Old and Tall Strains of Greenlight, than that of strains of 52-70. Greenlight Tall Strain averaged 1.3 inches longer petioles (buttto 1st node) and 0.8 inches greater overall length than did the Old Strain. Petioles are finely ribbed, slender, bright green in color and of good quality. Tall strain more desirable than Old strain.

Emerald showed considerable promise in this trial. Foliage color dark blue green with attractive glossy petioles. Excellent heart development, petioles number high, and about same length as Summer Pascal. Worthy of continued trial. Reported to have good resistance to early blight and slow bolting.

Spartan 162 - Type similar to Cornell 19, but good green color, Yield intermediate between Utah 52-70 and Summer Pascal, Good heart development. Petioles medium length, with broad flaring base, thick and fleshy, excellent flavor and quality. Worthy of retrial.

Compac 2 Excellent type, with good color, satisfactory number of long, thick, meaty petioles with good flavor and crispness. Good heart development and appears to hold well. Worthy of re-trial.

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Table 1
CELERY VARIETIES FOR LATE HARVEST, 1959
Celeryville, Ohio

Variety and Lot Number		Source	Average WEIGHT per Large Stalk	YIELD per Plot			Petiole Count at 4" Above Butt[2]	Petiole Length Butt - 1st Node[3]	Petiole Length Over-all[4]	Trimming Loss	Remarks
				Large Stalks[1]	Small Stalks	Marketable					
			Lbs.	Lbs.	Lbs.	Lbs.	No.	In.	In.	%	
12. Tall Utah 52-70	209-15	B_2	1.9	63.4	1.9	65.3	12.4	9.0	19.0	41.6	Tall plants, good uniformity, good heart development.
5. Utah 52-70	17006	A_2	1.8	60.4	2.9	63.3	12.4	8.9	19.3	42.6	Typical 52-70, exc. uniformity, compact stalks.
4. Utah 52-70H	28267	F_1	1.8	59.9	2.2	62.1	13.0	9.1	19.1	45.8	Longer petiole to 1st node, good heart development.
1. Greenlight (Tall strain)	532	H_1	1.8	58.9	2.3	61.2	14.9	8.4	17.5	43.8	High petiole number, fine ribbing, exc. qual.& unif. Best strain.
17. Utah 52-70	538	H_1	1.9	57.8	2.9	60.7	12.5	8.7	18.0	41.5	Typical 52-70, exc. uniformity.
18. Greenlight (Old strain)	522	H_1	1.7	58.8	1.9	60.7	14.5	7.1	16.7	39.8	Shorter petioles, prod.earlier than tall str. Holds well.
8. Emerald	-	H_2	1.6	57.3	2.1	59.4	12.9	7.6	15.8	43.7	Plants short, exc. foliage color, smooth high quality petioles.
13. Tall Utah 52-70H	211-1	B_2	1.7	54.8	4.8	58.1	12.6	9.1	18.7	42.1	Not as uniform as No. 4, but good heart develop. Suckers.
7. Improved Utah Jumbo	9401	G_1	1.7	54.3	3.1	57.4	13.5	7.3	17.0	47.4	Typical high quality, suckers excessively.
2. FM D-5(Pascal 137)	28249	F_1	1.7	54.3	2.7	57.0	9.6	7.9	16.5	37.0	Poor heart develop. Petioles flare, Exc. quality.
LSD at 5% Level				8.2	2.1	8.3					

1-Yield per plot of 23 feet. (To convert yields to 65 lb. crates per acre multiply by 11.8)
2-Number of petioles 4" above butt.
3-Length from butt to first node.
4-Length from butt to tip node.

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				Large Stalks[1]	Small Stalks	Marketable					
			lbs	lbs	lbs	lbs	No.	in.	in.	(%)	
19. Celery 52-70 (Vitality test)	87003	F1	1.6	53.0	1.9	54.9	14.7	7.7	17.5	49.1	Higher petiole count, smt. shorter 1st internode & overall length uniform.
10. Tall Pascal D5(Pascal 137)	- -	H2	1.5	50.8	3.2	54.0	10.3	7.8	15.9	37.6	Identical to No. 2, plant loose and open.
20. Utah 16-11	37125	A2	1.6	49.5	3.7	53.2	12.3	8.3	18.4	43.9	Short 1st internode good overall length, compact.
11. Utah No. 15	210-35	B2	1.6	49.8	3.2	53.0	13.5	7.2	17.0	48.2	Shorter than normal, loose and open.
14. Spartan 162	529	H1	1.6	48.6	3.2	51.8	11.7	8.7	17.4	48.1	Thick fleshy petioles, exc. quality and heart develop.
9. Celery No. 2(Compac 2)	- -	H2	1.6	45.9	5.4	50.3	10.6	9.3	18.9	48.0	Same as No. 3
3. Compac 2	28258	F1	1.5	44.2	5.1	49.3	10.7	9.0	17.7	47.4	Exc. type flavor & quality good heart develop thick petioles.
6. Summer Pascal 259-19	20370	F1	1.4	44.4	3.1	47.5	9.4	7.7	16.3	46.4	Longest petioles of summer Pascal strains.
16. Summer Pascal Walth. Strain	530	H1	1.4	41.5	3.4	44.9	10.2	7.1	15.6	48.2	High petiole count and best heart development.
15. Summer Pascal	502	H1	1.2	35.3	4.9	40.2	9.4	6.5	14.4	46.2	Typical, but looks vigorous.
LSD at 5% Level				8.2	2.1	8.3					

1- Yield per plot of 23 feet. (To convert yield to 65 lb. crates per acre, multiply by 11.8).
2- Number of petioles 4" above butt.
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